

REMARKS:

Claims 20-31 are in the case and presented for consideration.

Claim 20 has been amended.

The undersigned thanks the Examiner for the telephone interview of November 7, 2008, during which this application was discussed. It was tensilely agreed that the claims as currently amended would overcome the Examiner's formal objections and the Examiner is sincerely thanked for his time and effort.

SPECIFICATION:

The specification has been amended to add clarity in light of the amendments to currently amended independent claim 20.

REJECTION OF CLAIMS UNDER 35 U.S.C. §112

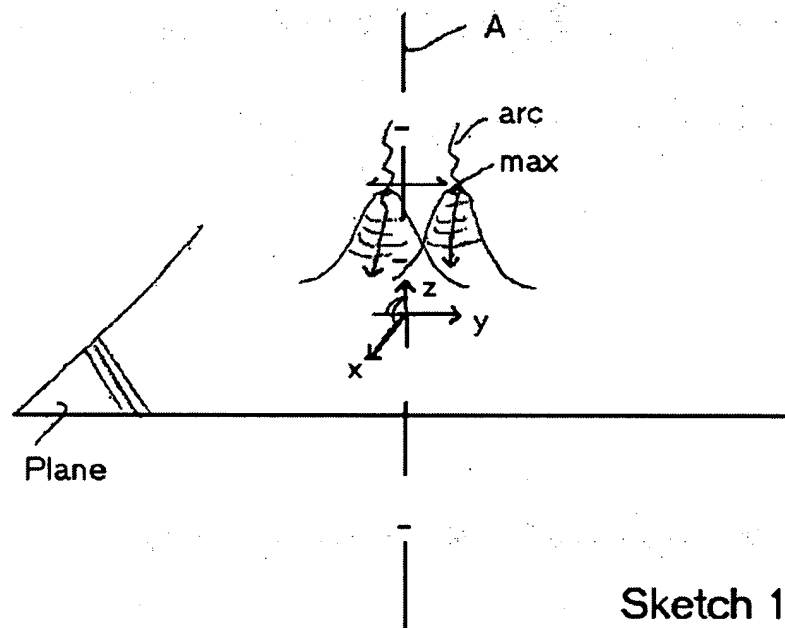
Claims 20-31 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Applicants respectfully traverse the Office's rejections.

The limitation "a plasma beam with a maximum density peak in a plane perpendicular to said plasma beam discharge directional axis," claimed in previously presented claim 20 has been replaced with the limitation "a plasma beam with a maximum density peak which migrates around said plasma beam discharge directional axes along a in-a-plane perpendicular to said plasma beam discharge directional axes...."

Currently amended claim 20 now more clearly states what is supported in the specification in paragraphs 5, 44, 45, 46 and Figures 1 and 2.

As shown in figures 1 and 2, the plasma discharge directional axis (A) is a geometric line which runs from one electrode to the other. As is known by those of ordinary skill in the art, an arc discharge, i.e., a low voltage, high current plasma discharge in which the arc burns between two electrodes, is never absolutely stable. Instead, as shown in sketch 1, below, it slightly migrates around the geometric axis (A).



Additionally, the term "DC" has been removed from currently amended claim 20 so that it now reads "plasma discharge configuration" which includes within its scope both DC and RF power sources. This amendment to currently amended claim 20 finds support throughout the specification, particularly in paragraph [0017].

Accordingly, it is believed that the subject matter contained in the claims of the present application are described in the specification in such a way as to reasonably convey to one of ordinary skill in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

SECOND REJECTION UNDER 35 U.S.C. §101

Claims 20-31 are rejected under 35 U.S.C. 101 alleging that the disclosed invention is inoperative and therefore lacks utility.

Applicants respectfully traverse the Office's rejections that the present invention lacks utility.

In light of the above discussion, it should be clear to one of ordinary skill in the art how the maximum peak density can be found migrating along a plane which is perpendicular to the plasma beam axis.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested.

No new matter has been added.

If any issues remain, the Examiner is respectfully invited to contact the undersigned at the number below, to advance the application to allowance.

Respectfully submitted,

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